AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Natural Stone Materials and Conservation Methods								
Course Code	MRP123		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	73 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	To give information about the construction and repair of stone materials used in architectural works.								
Course Content	Formation and characteristics of the rocks and stones species, stone processing and workmanship; quarry and transport, masonry, tools used in stonework and traces on the stones, types of deterioration of stones; physical deterioration factors, chemical deterioration factors and bioderioration factors, methods of recognition of deterioration stones and detection of conservation situation, documentation, inventory methods and report.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Ins. Ufuk ÖREN								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Mac Kenzie, W.S. , A Color Atlas of Rocks and Minerals in Thin Section, New York 2007.
2	Famdon, J., The Practical Encyclopedia of Rocks and Minerals, London 2006.
3	Lazzrini, L., Pieper, R., The Deterioration and Conservation of Stone:Notes from the International Venetian Courses on Stone Restoration
4	Shadmon, A., Stone:An Introduction, Intermediate Technology Publications, London 1996
5	Lazzarini, L., Tabasso, M.L., Il Restauro della Pietra, Padova 1992. Torraca, G., Porous Building Materials, ICCROM, Roma 1981.

Week	Weekly Detailed Course Contents	
1	Theoretical	Formation of Rocks and Rock Types
2	Theoretical	Igneous (Volcanic) Rocks
3	Theoretical	Sedimentary Rocks
4	Theoretical	Metamorphic (Transfiguration) Rocks
5	Theoretical	Ancient Stone Work
6	Theoretical	Stonework Hand Tools
7	Theoretical	Stone Removal Methods
8	Theoretical	Midterm exam
9	Theoretical	Distortion in Stone Works
10	Theoretical	Physical Impairments
11	Theoretical	Chemical Disorders
12	Theoretical	Chemical Disorders
13	Theoretical	Biological Disruptions
14	Theoretical	Due Diligence and Documentation in Stone Works
15	Theoretical	Due Diligence and Documentation in Stone Works

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	10	2	0	20

Term Project	1	2	0	2
Midterm Examination	1	11	1	12
Final Examination	1	10	1	11
			Total Workload (Hours)	73
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Information is given about the solar system and the formation of the earth, the structure of the earth, convection flow, crust motions, rock types and the basic minerals that form rocks.
2	General information about igneous rocks, basic minerals in igneous rocks, types of igneous rocks and their general characteristics are given.
3	Information is given on the basic properties, sedimentary minerals, types and properties of sedimentary rocks.
4	Information is given on the basic properties of metamorphic (metamorphic) rocks, their main minerals, types and properties.
5	In Antiquity, information is given about the methods of removing the stones from the quarry and moving to the construction site or workshop.
6	Information about hand tools used in antiquity stonework, usage patterns and traces left on the stone are given. patterns pattern
7	General information about Ancient Architecture and Modern architectural layouts is given.

Programme Outcomes *(Architectural Restoration)*	
1	The restoration, structural information, the matters required by the construction technology and infrastructure areas have sufficient theoretical and practical knowledge in this field and win.
2	Using the basic level of knowledge and skills acquired in the field, interpret and evaluate data, identify problems, analyze, would have the ability to develop solutions based on evidence.
3	Restoration terminology, values that protect the basic principles for the identification and protection purposes, the protection will have information about the evolution of understanding and methods.
4	The causes of deterioration tile works, to be implemented between the restoration and conservation methods and have the basic information about the techniques.
5	modern techniques required for applications related to the field, tools, and you can select and use information technology effectively.
6	Drawing to gain the perspective necessary, plans, sections, elevations, have knowledge about perspective drawings and descriptions, at various scales, section, learn how to view details and to review the project.
7	The concept of traditional crafts, periods, techniques, materials, and have knowledge about the historical development.
8	When faced with unforeseen situations in the field of application to produce solutions, won the individual to take responsibility in the team or work ability.
9	By using computer-related applications and commands used in the project drawings, studies measuring the output settings and make applications work on the plan.
10	Labor law and occupational safety, environmental protection and quality have the consciousness.
11	Archaeological research methods, have knowledge about excavation methods and types. drawing museum in presentation material examination of the legislation in the application of archeology and artifacts within the scope of the documentation and cataloging acquire knowledge and skills.
12	Survey, restoration, knows the basic principles and methods in restitution and conservation. The history of restoration and will have the necessary information about the current restoration techniques applied in the world.
13	building materials that are used in historical buildings, construction techniques, have a general knowledge about the causes of deterioration and preservation techniques.
14	Wood will have a basic knowledge of the causes of deterioration and take necessary protection methods.
15	on Traditional Turkish House Architecture; The origin of Turkish houses, regional specialties, plan types, building systems, construction materials, will have information about the features and facade decorations.
16	have knowledge about perspective drawings and descriptions, at various scales, section, learn how to view details and to review the project.
17	control services in buildings, unit price and description analysis, excavation, and will have information about transportation and accounting affairs.
18	He gains the ability to conduct research.
19	The creation of an architectural project and all the architectural layout of the project and learn the making of three-dimensional computer drawings of the visual.
20	They have to respect the historical value of professional ethics.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5	L6	L7
P1	5	4	4	4	5	4	4

P2	2	1					
P3	4	5	5	5	2	5	3
P4	1						
P5	4	3	3	4	4	5	4
P6	1						
P7	3					4	
P8	4	3	2	3	4	4	3
P9	1						
P10	1						
P11	2		1		1	4	3
P12	1						
P13	4	5	4	5	5	5	5
P14	1						
P15	1						
P16	1						
P17	1						
P18	1						
P20	5	4	5	5	5	5	4